

Remarks

Reconsideration of this Application is respectfully requested.

Upon entry of the foregoing amendment, claims 14-25 are pending in the application, with 14 and 20 being the independent claims. Claims 14, 20, and 25 are sought to be amended. These changes are believed to introduce no new matter, and their entry is respectfully requested.

Based on the above amendment and the following remarks, Applicant respectfully requests that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn.

Objection to the Claims

On page 2 of the Office Action, claim 25 was objected to allegedly for minor informalities. Claim 25 has been currently amended to overcome this objection. Accordingly, Applicants respectfully request that this objection be reconsidered and withdrawn, and the amendment to claim 25 be entered.

Rejection under 35 U.S.C. § 102

On page 2 of the Office action, claims 14-16, 18-21, and 23-25 were rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent No. 5,155,370 to Osawa *et al.* (hereinafter "Osawa"). Applicants respectfully traverse this rejection.

Claim 14

Claim 14 recites features that distinguish over the cited references. For example:

"[A] sensor that receives combined coherent beams of light diffracted by the target alignment area via the lens system, the sensor configured to use the combined coherent beams of diffracted light to determine a position of the target alignment area before the subsequent pattern is exposed and to produce a control signal related to the determined position, wherein the control signal is used to substantially reduce unwanted reflections due to optics within the exposure portion;" (Emphasis added).

Osawa does not teach or suggest at least this feature of claim 14. The Examiner has referred to FIG. 1A of Osawa in rejecting this claim. "FIG. 1A is a schematic view of an alignment system using zone plates," and is a proximity alignment system to align a mask and a wafer. (See, for example, col. 2, line 56 and col. 3, lines 22-24 of Osawa). In contrast, claim 14 recites aligning only a substrate using *light diffracted by the target alignment area via the lens system*. In other words, claim 14 recites fixing an absolute position of a single object viz. the substrate (more particularly, *the target alignment area*). Additionally, it is well known in the art that the method of proximity alignment using zone plates/spot size measurement as taught by Osawa is different from intentionally forming a diffraction pattern (which is measured as a time-based signal) caused *due to optics within the exposure portion*, as recited by claim 14. Accordingly, Osawa does not anticipate each and every element of claim 14. Accordingly, Applicants respectfully request that this rejection be reconsidered and withdrawn, and that claim 14 and its dependent claims be passed to allowance.

Claim 20

Claim 20 recites features that distinguish over the cited reference. For example:

"[D]iffracting superluminescent light from the target alignment area to produce +/- first order diffracted beams resulting from the lens system and the substrate alone;" (Emphasis added).

Osawa does not teach or suggest at least this feature of claim 20. Similar to the arguments presented immediately above for claim 14, Osawa does not anticipate each and every feature of claim 20. Accordingly, Applicants respectfully request that this rejection be reconsidered and withdrawn, and that claim 20 and its dependent claims be passed to allowance.

Rejection under 35 U.S.C. § 103

On page 11 of the Office Action, claims 17 and 22 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Osawa, as applied to claims 14 and 20, and further in view of U.S. Patent No. 4,821,277 to Alphonse *et al.* (hereinafter "Alphonse"). Applicants respectfully traverse this rejection.

Claims 17 and 22 depend directly from claims 14 and 20, respectively. Alphonse does not solve for the deficiencies of Osawa. Accordingly, Applicants respectfully request that this rejection be reconsidered and withdrawn, and that claims 17 and 22 be passed to allowance, at least for same reasons as claims 14 and 22, respectively, presented immediately above, and further in view of their unique features.

Other Matters

Applicants note with appreciation, the Examiner's full consideration of the Information Disclosure Statement filed on December 5, 2006.

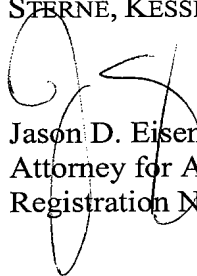
Conclusion

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicant believes that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

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